



HIE Policy Board Meeting

Agenda



- Roll Call and Announcement of Quorum
- Review and Approval of Minutes
- Winter 2016/2017 Updates
- Sustainability Subcommittee Update
- Data Mapping Presentation & HIE Performance Monitoring Framework
- DCHIE Designation Criteria
- Next Meeting



Roll Call and Minutes



- Roll Call and Announcement of Quorum
- Review and Approval of Minutes



DC HIE: Our Vision & Mission



Vision

To advance health and wellness for all persons in the District of Columbia by providing actionable information whenever and wherever it is needed.

Mission

To facilitate and sustain the engagement of all stakeholders in the secure exchange of useful and usable health-related information to promote health equity, enhance care quality, and improve outcomes in the District of Columbia.



4

Updates: HIE Winter 2016/2017



- Outreach to support Meaningful Use
 - Health IT TA Contract Under Review By CMS:
 - Will Promote Use Of CEHRT In DC, Provide TA, And Conduct Environmental Scan To Update The State Medicaid Health Information Technology Plan (SMHP)
- Exchange: Transmission & Receipt Of Health-related Data
 - HIE Grant [FY17] To Solicit Applications To Execute The Five 5 New HIE Initiatives Established By The FY16-17 IAPD-U
 - NOFA Released On Nov. 25th
 - RFA Released On Dec. 9th And Closed On January 9th
 - Technical Evaluation Panel Selected Awardee
 - NOGA nearly final; will be submitted to CMS for approval
- Pursuing Executive Order of the Mayor to advance HIE **Designation process**





SUSTAINABILITY SUBCOMMITTEE UPDATE

Outreach Meetings: Progress to Date



Organization	HIEPB Attendees	Dates
KPMAS	Erin Holve, Mary Jones Bryant, Allison Viola	Meeting held 12/4/1
BridgePoint Hospital	Alison Rein, Erin Holve	Meeting held 1/30/17

- Very collegial discussions
- Materials are at right level questions generate good conversation
- Based on early feedback, are developing some 'use cases' to facilitate discussion (e.g. for members/non-members; for policy and planning, etc.)
- Some groups at very early stage of HIE; great opportunity to continue a dialogue

Outreach Meetings: Up Next....



Organization	HIEPB Attendees	Dates
AmeriHealth	Pete Stoessel, Donna Ramos- Johnson, Erin Holve	Rescheduling for March 16
CareFirst	Claudia Schlosberg, Christian Barrera, Erin Holve	Rescheduling for February 22
GWU Hospital/MFA	Alison Rein, Erin Holve	Scheduling for March
Gerald Family Care	TBD	Scheduling for March
Sibley Hospital	TBD	Scheduling for March

Special Session?



- Upcoming Sustainability Subcommittee
 Meetings
 - Wanda is scheduling a new round of meetings. A Doodle poll on the way.
- Special Session in April or May?







DATA MAPPING & HIE PERFORMANCE MONITORING

Assessing Where We've Been and Where We're Going



- Review proposed performance monitoring framework for HIE
- Available data to assess HIE
 - Data map
 - Current metrics
- Receive Board's input and suggestions on
 - Measures and sources of data for the SMHP
 - Ongoing monitoring and dashboarding
 - Envisioned HIE "headlines" in 2021

DHCE

Draft Proposal: Monitor 4 Components of HIE



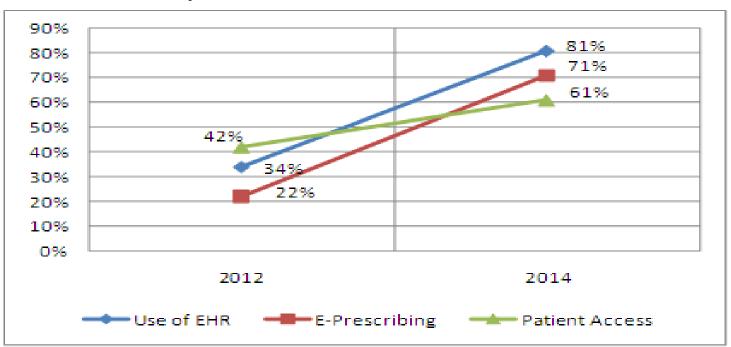
- <u>Infrastructure</u>: Access to and use of electronic health data
- Exchange: Ability to Transmit and Receive Health-Related Data
- Improved Service at the Point of Care
- <u>Health Improvement</u>: Better Care, Smarter Spending, Healthier Communities



EHR Adoption Rates Are High Among Hospitals, Physicians







- 81 % of all actively licensed physicians in DC were using EHRs in 2014*
- 89% of all actively practicing DC-based physicians (>20 hours/week) were using EHRs in 2014*

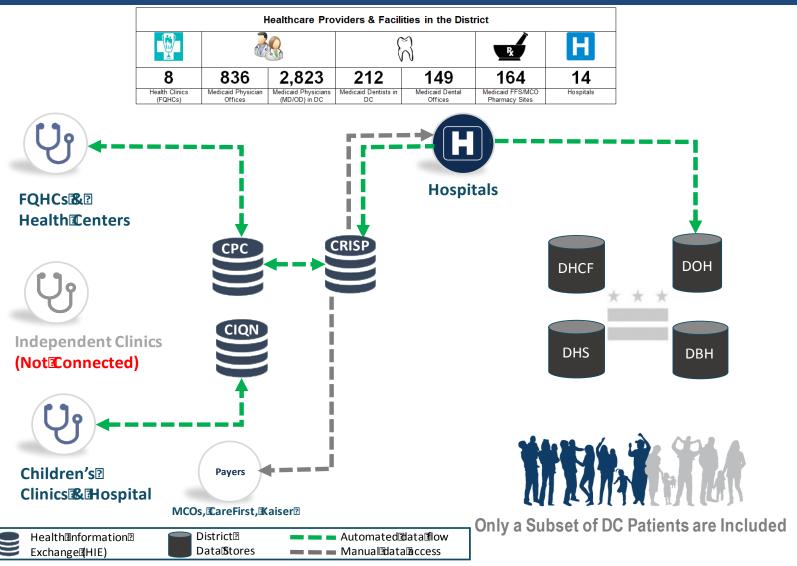
*2014 DOH Survey Data



February 2017 13

Current State of DC HIE Connectivity

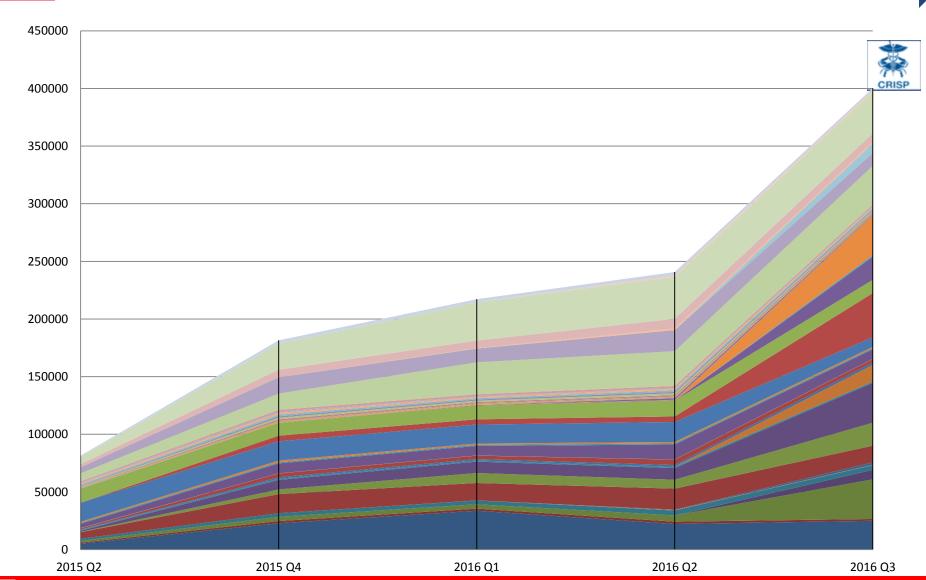




^{*}Data Source: 2016 Clinovations Government + Health Report to DHCF

Active Use of CRISP by DC Providers: 400K ENS

Notifications (Q2 2015 - Q3 2016)





February 2017 15

Performance Measures Used in DHCF Value-based Initiatives



Domain	Measures	FQHC P4P	My Health GPS P4P	MCO P4P
	Low-Acuity Non-Emergent Emergency Department Visits	X	X	X
Outcomes	All-cause 30-day Readmissions	X	X	X
	Preventable Hospitalizations	X	X	X
Process Measures	Timely Transmission of Transition Record	X	X	
	Follow-Up after Hospital Discharge	X		
	Follow-Up after Hospital Discharge for Mental Illness	X	/	
	Reconciled Medication List		X	
Patient-	Extended Hours	X		
Centered Access	24/7 Access Policy	Х		
Efficiency	Total Resource use		Х	
	Total Cost of Care		X	

Assessing Progress Towards Effective HIE

Components of HIE Evaluation	Example "Headlines"	Example Measures (Sources of Data and Frequency)
Infrastructure	 "X% of physicians and Y% of hospitals in the District use certified EHR technology" "A% of physicians and B% percent of hospitals have achieved meaningful use stage 3, on par with national estimates" 	 EHR Adoption Rate (DOH provider survey) MEIP Attestations (DHCF, monthly)
Exchange	 "All primary care providers, hospitals, nursing homes, and dentists in the District have the ability to send and receive health data" "In Q2 2021, X million encounter notifications were sent within the District (X.X per capita), exceeding national estimates by 10%" 	 Capability Number of CPC or CRISP Service contracts, by provider type Exchange Transmission & Receipt of Health-Related Data (e.g. CRISP, monthly)
Improved Service at the Point of Care	 "80% of physicians report they have access to patient information when they need it" "90% of care coordinators report they feel they have complete, accurate, and timely information needed to provide integrated care management" 	 Satisfaction ratings from participating My Health GPS providers (Annually? Quarterly?)
Health Improvement: Better Care, Smarter Spending, Healthier Communities	 "Due in part to timely, accurate HIE, the District has achieved a 15% reduction in preventable hospital readmissions for Medicaid beneficiaries, resulting in \$X savings to the District" 'Ongoing assessment of prenatal risk factors has resulted in a 25% reduction in infant mortality and sharply reduced disparities in care across wards." 	 % reduction in preventable hospital readmissions for Medicaid Beneficiaries between 2018 and 2010 (DHCF claims data, annual estimates)



CLARIFICATION QUESTIONS?



Inventory and Connectivity of Governmental Health Information Systems in the District of Columbia

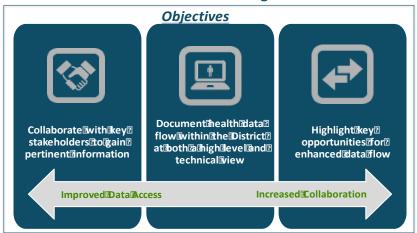
February 16, 2017 – HIE Policy Board Meeting

Activities and Methodology



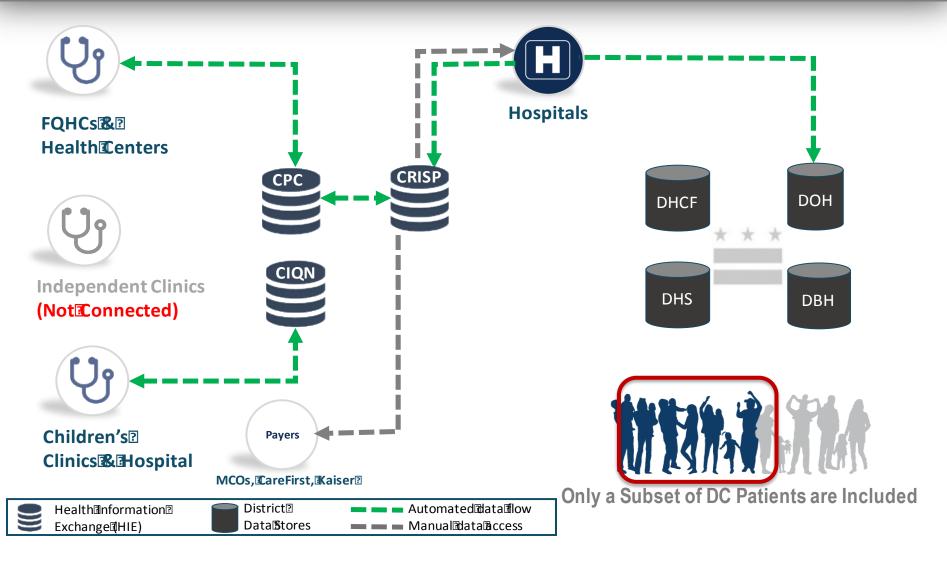
- Conduct Interviews/Collect Data
 - Provider Organizations
 - 8 hospitals
 - 38 clinics (133 sites)
 - 2 laboratories
 - 4 radiology centers
 - DHCF MMIS and Data Warehouse Teams
 - DOH Teams for CPPE, CHA,
 HAHSTA, ELR, Rhapsody
 - DBH Teams
 - DHS Teams
- Document Findings and Exchanges
- Identify Exchange Gaps
- Support Communications

Goal: Gain foundational understanding favailable data, where it's stored and barriers to bata exchange within the District



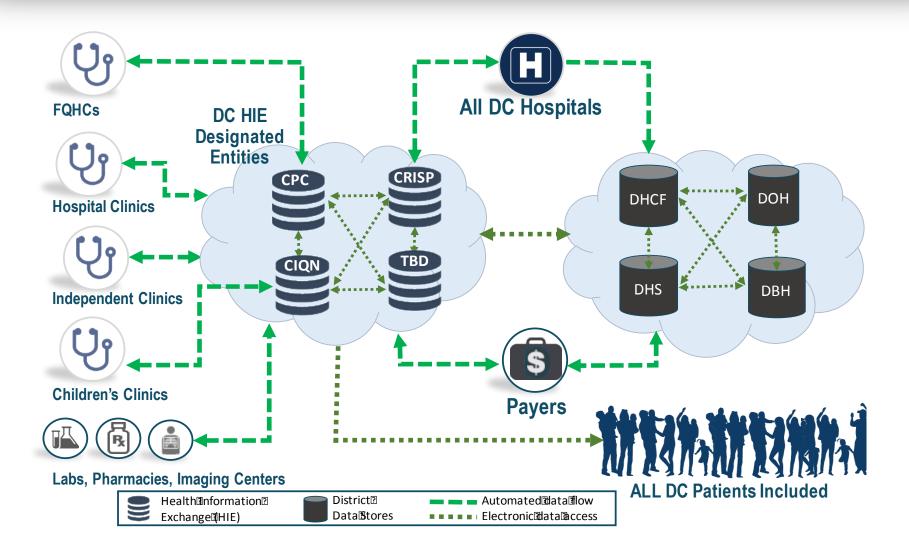
Current State (Summary View)





Future State Visioning (Summary View)





Summary: Data Flows (Integration)



Patients Served

- Current HIEs serve distinct patient populations
- Only a subset of patients served



- FQHCs
- Providence Hospital



- Children's Hospital
- Children's Clinics
- Children's affiliated clinics



- Encounter info for 8 hospitals
- Lab info for 5 of 8 hospitals
- Rad reports for 6 of 8 hospitals
- C-CDAs for 1 of 8 hospitals



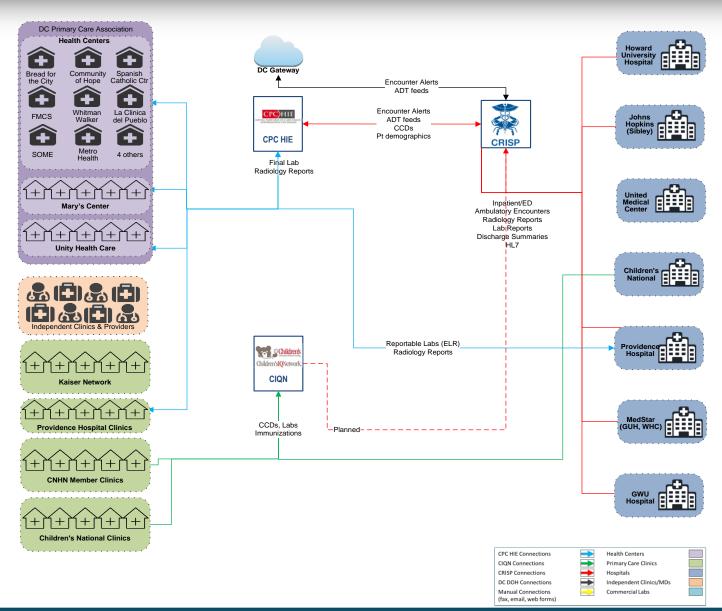
0% of HIEs Serve These Patients

Examples

 Independent Benning Rd, Anacostia Providers/Clinics

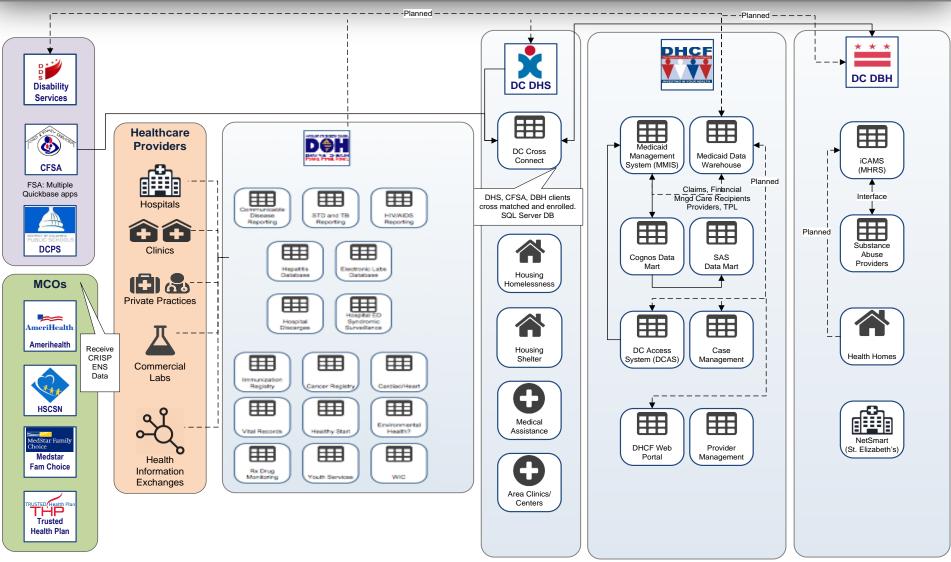
Clinical Data Map: Provider-HIE View





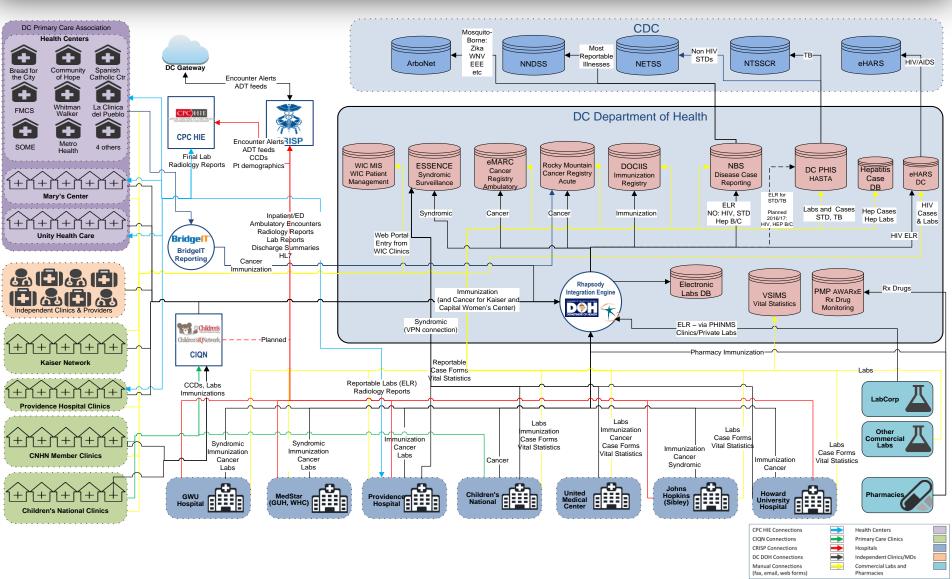
DC Data Connectivity





Clinical Data Connectivity Map: Total system map





Data Availability Heat Map



				Electro	nic Data Av	ailable to C	Connect		HIE	or Reposito	ory With Data		(Connections to DC	Departmen	of Health	
Provider Site	↓i EHR/Health IT	v u v CCDs	▼ HL7 Lab	▼ Rad	▼ Cancer	▼ Immuni	▼ ELR	▼ Syndromic ▼	_			▼ MU-SS	▼ MU-Imm	▼ MU-Cancer ▼	MU-ELR	Case Repor	Vital Statistics 🔻
Children's National	Cerner	YES	YES	UNK	YES	YES	YES	YES	NO	NO	NO	2.5.1*	Manual	NAACCR 13	Manual	Web Forms	Web Forms
GWU Hospital	Cerner	NO	YES	UNK	YES	YES	YES	YES	NO	NO	ADT, Lab, Rad	2.5.1	2.5.1	NAACCR 13	2.5.1	Web Forms	Web Forms
Howard Univ Hospital	Siemens	NO	NO	NO	YES	YES	YES	YES	NO	NO	ADT, Lab, Rad	2.5.1*	2.5.1	NAACCR 13	Manual	Web Forms	Web Forms
Johns Hopkins - Sibley Hosp	Epic	NO	NO	NO	YES	YES	YES	YES	NO	NO	ADT, Lab, Rad	2.5.1	2.5.1	NAACCR 13	Manual	Web Forms	Web Forms
MedStar Georgetown Hosp	Cerner	NO	NO	NO	YES	YES	YES	YES	NO	NO	ADT, Lab, Rad	2.5.1	2.5.1	NAACCR 13	2.5.1	Web Forms	Web Forms
MedStar Washington Hosp Ctr	Cerner	NO	NO	NO	YES	YES	YES	YES	NO	NO	ADT, Lab, Rad	2.5.1	2.5.1	NAACCR 13	2.5.1	Web Forms	Web Forms
Providence Hospital	MEDITECH	NO	YES	YES	YES	YES	YES	YES	YES	NO	ADT,CCD,Lab,Rad		2.5.1	NAACCR 13	2.5.1	Web Forms	Web Forms
UMC Hospital	MEDITECH	NO	NO	NO	NO	UNK	UNK	YES	NO	NO	NO	2.5.1*	Manual	Manual	Manual	Web Forms	Web Forms
				Electr	onic Data A	Available to	Connec	t	Н	IE or Repos	sitory With Data		С	onnections to D	C Departm	ent of Healt	1
Provider Site	EHR/Health IT	u ✓ CCDs	▼ HL7 Lab			r Immu		▼ Syndron ▼	Col						М	U- Case	Vital
LabCorp	n/a	N/A	N/A	N/A	N/A	N/A	YES	N/A	СРС	▼ CIQN	▼ CRISP	TIT M	U-SS 🔽 MU-	·Imm 🔽 MU-Car	icer 🔽 EL	R 🔽 Report	i 🔻 Statistics 🔻
Quest and other Commecial Labs		N/A	N/A	N/A	N/A	N/A	NO	N/A	N/A	N/A	N/A	N,	'A N/A	N/A	2.	3.1 N/A	N/A
Barnard Medical Center	Athena	UNK	UNK	UNK	UNK	UNK	N/A		N/A	N/A	N/A	N,				anual N/A	N/A
Capital Heart Center	UNK	UNK	UNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,					
Capitol Hill Medical Clinic	UNK	UNK	ÜNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,					
Capitol Women's Center	NextGen	UNK	UNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,					,
Children's National Health Clinics		YES	YES	YES	YES	YES	N/A		UNK NO	UNK YES	UNK NO	N,					
Bread For The City	eCW	YES	YES	YES	YES	YES	N/A		YES	NO NO	ENS Panel	N,		Manual NS -> CI			
Children's Health Project Clinics †		YES	YES	YES	YES	YES	N/A		NO	NO	NO	N,			DA R2* N/		
Community of Hope Clinics †	eCW	YES	YES	YES	YES	YES	N/A		YES	NO	ENS Panel	N,			DA R2* N/		
Elaine Ellis Cener of Health	eCW	YES	YES	YES	YES	YES	N/A		YES	NO	ENS Panel	N,			DA R2* N/		
Family & Medical Counseling	eCW	YES	YES	YES	YES	YES	N/A		YES	NO	ENS Panel	N,			DA R2* N/		I N/A
La Clinica Del Pueblo	eCW	YES	YES	YES	YES	YES	N/A		YES	NO	ENS Panel	N,	'A 2.4	NS -> CI	DA R2* N/	'A Manua	I N/A
Mary's Center Clinics †	eCW	YES	YES	YES	YES	YES	N/A		YES	NO	ENS Panel	N,	'A 2.4	NS -> CI	DA R2* N/	'A Manua	I N/A
Metro Health	eCW	YES	YES	YES	YES	YES	N/A		YES	NO	ENS Panel	N,			DA R2* N/		
Pathways to Housing	eCW	UNK	ÜNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,			DA R2* N/		
So Others Might Eat	eCW	YES	YES	YES	YES	YES	N/A		YES	NO	ENS Panel	N,			DA R2* N/		
Spanish Catholic Center	eCW	UNK	UNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,			DA R2* N/		
Unity Health Care Clinics †	eCW	YES	YES	YES	YES	YES	N/A		YES	NO	ENS Panel	N,			DA R2* N/		
Whitman Walker	eCW	YES	YES	YES	YES	YES	N/A		YES	NO UNK	ENS Panel UNK	N,		NS -> CI Manual			
Dupont Circle Physicians	UNK	UNK	UNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,					
Foxhall Medicine	UNK	UNK	UNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,					
Foxhall OB/GYN	UNK	UNK	UNK	UNK	UNK	YES	N/A	•	UNK	UNK	UNK	N					
Nephrology & Transplant Medicin		UNK	UNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,		1 Manual			I N/A
Primary Care at Foxhall	UNK	UNK	UNK	UNK	UNK	YES	N/A		UNK	UNK	UNK	N,	'A 2.5.:	1 Manual	N/	'A Manua	I N/A
Gerald Family Care	UNK	UNK	UNK	UNK	UNK	YES	N/A		NO	NO	ENS Panel	N,	'A Mar	nual Manual	N/	'A Manua	I N/A
GWU Clinics (MFA)	Allscripts Enterprise	UNK	UNK	UNK	UNK	YES	N/A		NO	NO	ENS (IN PRO	OG) N	'A Mar	nual Manual	N/	'A Manua	I N/A
Howard Clinics		NO	NO		UNK	YES	N/A		UNK	UNK	UNK	N,	'A 2.5.1	1 Manual	N/	'A Manua	I N/A
Howard University Family Pediatr	Allscripts Enterprise	UNK	UNK	NO UNK	UNK	YES	N/A N/A		UNK	UNK	UNK						
HSC Pediatrics	MedHost -> eCW	UNK	UNK	UNK	UNK	YES	N/A N/A					N,					,
Immaculate Health	UNK	UNK			UNK	YES	N/A N/A		UNK	UNK	UNK	N,					
		NO	UNK	UNK	UNK	YES			NO	NO	ADT, Lab, R	10.000					
Johns Hopkins Clinics	Epic	NU	NO	NO	UNK	YES	N/A	N/A	UNK	UNK	UNK	N,	'A 2.5.:	1 NAACCE	R 13 N/	'A Manua	I N/A

MedStar Georgetown Hospital Outpat GE Centricity ->

Kaiser

Kaiser Permanente Centers

UNK

NO

UNK

UNK

UNK

ŲNK

YES

N/A

2.5.1

Manual

N/A

N/A

N/A

N/A Manual

Implications



- Access to health-relevant Information is critical for:
 - Decision-making in the District
 - Day to day
 - Long term planning
 - Emergencies
 - For healthcare providers to offer optimal healthcare to the DC public
 - For the DC public to optimally assess and manage their health
- Incomplete picture of what information exists in digital form from:
 - Healthcare providers
 - DC government agencies
 - Other potential information sources
- Much digital information is silo-ed and difficult to access outside of the organization which owns it

Takeaways



- DC has a high number of hospitals compared to other cities
 - 4 different hospital (inpatient) EHR vendors majority of beds are not on a single EHR platform
 - Given high Medicaid population spread across hospitals /clinics— there is a need for cross-organization HIE (vs. hospital-centric or private payer HIE/ACO infrastructure)
- Ambulatory connectivity variability
 - High connectivity of CHCs and hospital-owned clinics
 - Low connectivity of small practice providers to hospital data
- No data access or view of all ambulatory and inpatient encounters for a patient
 - Facilities are connected for certain data (Immunizations)
 - Gaps in data exist (CCDs, Radiology, Labs)
 - Gaps in connectivity to behavioral health, long-term care
- Data is decentralized (this can be okay)
 - Unclear how data can be matched, queried, or exchanged across HIEs
 - Claims data could provide valuable insight given DC's HIT landscape
 - Value-based purchasing/population health measures require data contained in different HIE silos and/or claims data

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Assessing Progress Towards Effective HIE

Components of HIE Evaluation	Example "Headlines"	Example Measures (Sources of Data and Frequency)
Infrastructure	 "X% of physicians and Y% of hospitals in the District use certified EHR technology" "A% of physicians and B% percent of hospitals have achieved meaningful use stage 3, on par with national estimates" 	 EHR Adoption Rate (DOH provider survey) MEIP Attestations (DHCF, monthly)
Exchange	 "All primary care providers, hospitals, nursing homes, and dentists in the District have the ability to send and receive health data" "In Q2 2021, X million encounter notifications were sent within the District (X.X per capita), exceeding national estimates by 10%" 	 Capability Number of CPC or CRISP Service contracts, by provider type Exchange Transmission & Receipt of Health-Related Data (e.g. CRISP, monthly)
Improved Service at the Point of Care	 "80% of physicians report they have access to patient information when they need it" "90% of care coordinators report they feel they have complete, accurate, and timely information needed to provide integrated care management" 	 Satisfaction ratings from participating My Health GPS providers (Annually? Quarterly?)
Health Improvement: Better Care, Smarter Spending, Healthier Communities	 "Due in part to timely, accurate HIE, the District has achieved a 15% reduction in preventable hospital readmissions for Medicaid beneficiaries, resulting in \$X savings to the District" 'Ongoing assessment of prenatal risk factors has resulted in a 25% reduction in infant mortality and sharply reduced disparities in care across wards." 	 % reduction in preventable hospital readmissions for Medicaid Beneficiaries between 2018 and 2010 (DHCF claims data, annual estimates)

Discussion



- What data do we need to collect to monitor continual progress building HIE?
- Which issues/questions/data should be the focus of the environmental scan in our planned contract to update the DC SMHP?
- What level of data exchange is needed?
 - Population health
 - Is data available to manage high-risk population? Can care for priority conditions be managed with available data?
 - Community and social services resources (schools, wellness programs, transportation, housing, substance abuse, behavioral health)
- Which key metrics/data elements should be reported on an on-going basis in a dashboard?
- Which audiences should we plan to reach with this information? In what format should data be presented?
 - What do we need to do to ensure strong payer care management, engagement, and integration

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February 2017 3





HIE DESIGNATION PROCESS

Goals of HIE Designation



Sustainable exchange of health information is fundamental for the District's health reform efforts.

HIE designation is needed to create a more defined structure for the DC HIE by:

- <u>Establishing a Core Set of Standards</u> Ensure HIEs are able and willing to meet District standards and expectations for exchange
- <u>Formalizing Partnerships</u> Facilitate a more direct level of cooperation between the District Government and current HIE assets.
- <u>Streamlining the District's Ability to Provide Resources</u> Allow District to be more nimble in responding to rapidly changing technology, policies, and HIE needs of stakeholders



November 10, 2016 3

Timeline



- Establish designation subcommittee (November 2016)
- Initiate subcommittee (February 2017)
 - Committee deliberations and recommendations (February April,
 2017)
- Begin to draft HIE designation rule (April/May 2017)
- BSA Approval (July 2017)
- Executive Order of the Mayor re: Designation (August 2017)
- Submit Rule (September 2017)



HIE Designation Subcommittee



<u>Mission</u> – Provide recommendations to DHCF regarding the establishment of a formal Designation process for HIEs operating in the District

<u>Goals</u> – Elicit feedback on specific Designation requirements (e.g., Technical, Privacy, Security, etc.) and make recommendations to the HIE Policy Board regarding the legislative process.

<u>Frequency</u> – Monthly meetings, starting February 2017



November 10, 2016

Invited Members of the HIE Designation SubCommittee



- Justin Palmer, DC Hosp. Assn*
- Christian Barrera, Mayor's Office *
- Dena Hasan, DHS*
- LaRah Payne, DHCF
- Mike Noshay, Verinovum

HIE Representatives

- Donna Ramos-Johnson, DCPCA (CPC)*
- Brian Jacobs, Children's (CIQ)*
- TBD, CRISP
- TBD, DOH
- Katheryne Lawrence, iCAMS



^{*} Indicates members of the HIE Policy Board

Background on HIE Designation: See Handout



- In the summer of 2016, DHCF staff reviewed regulatory and legislative approaches to HIE Designation, including:
 - Maryland (Regulation)
 - Minnesota (Legislation)
 - New York (Regulation)
 - Pennsylvania (Legislation)
 - Texas (Legislation)

Key Concepts Common to HIE Proposals



- Six features of policy design common to all five HIE Designation approaches:
 - 1. Accreditation/Certification
 - 2. Business Operations
 - 3. Performance Monitoring
 - 4. Policies/Procedures
 - 5. Security and Encryption
 - 6. Technical (Other)



Major Areas of Discussion/Consideration



- Certification v. Accreditation
 - By which body? (EHNAC, HIMSS, ConCert)
- Requirements in terms of developing a fee schedule and sustainability plan?
- Annual reporting requirements?
- Monthly audit logs? Annual audit?
- Security and encryption standards? (e.g. NIST, HITRUST, etc.)
- Other technical standards (e.g. certified EHR, use of an MPI)



Discussion



- Are there any concepts you feel are missing from the current table?
- Other model states the committee should review?
- Do any of the current models appear to be a good place to "start" as a point of comparison with the District?
- Are there specific priority topics you would like to ensure the committee pays close attention to?

DHCF V VV





NEXT MEETING: APRIL 20, 2017 10AM-NOON

Proposed FY17 Board Activities and Deliverables





- Set Priorities
- Gather feedback from key stakeholders
- Provide resources and connections, including guest presenters
- Serve as ambassadors of DC HIE programs



HIEPB Activities

- Sustainability Committee outreach & report
- HIE designation legislation guidance & report
- My Health GPS Data subgroup & report



Recommendations

HIEPB

Mission, vision, and long-term goals (Oct '16)

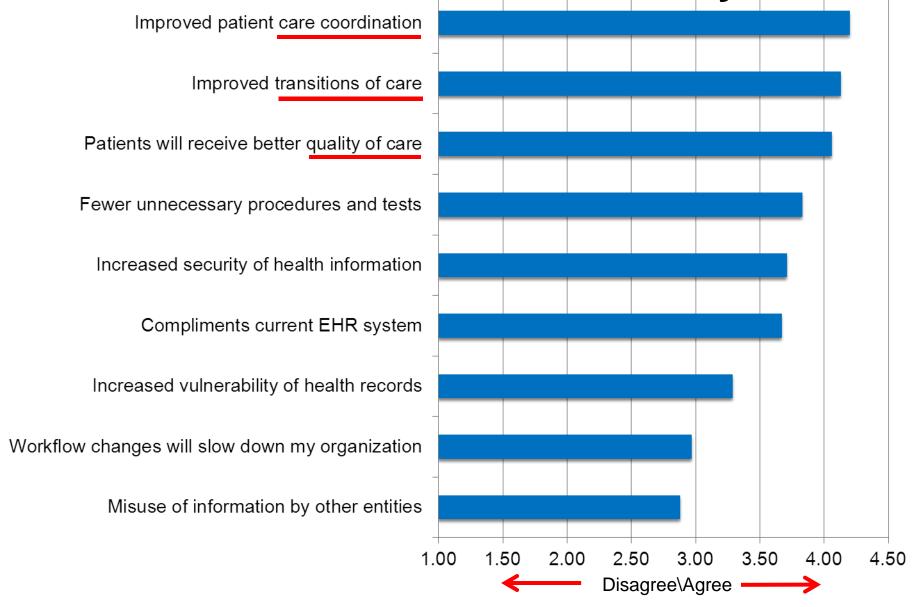
- FY17 priorities (Nov '16)
- DC HIE designation requirements (Feb '17)
- Core set of use cases (April '17)
- FY18 IAPD projects (June '17)
- Long-term Stakeholder Engagement Plan (July '17)
- High-level Sustainability Plan (Sept. '17)

HIEPB Ongoing Tasks & Roles

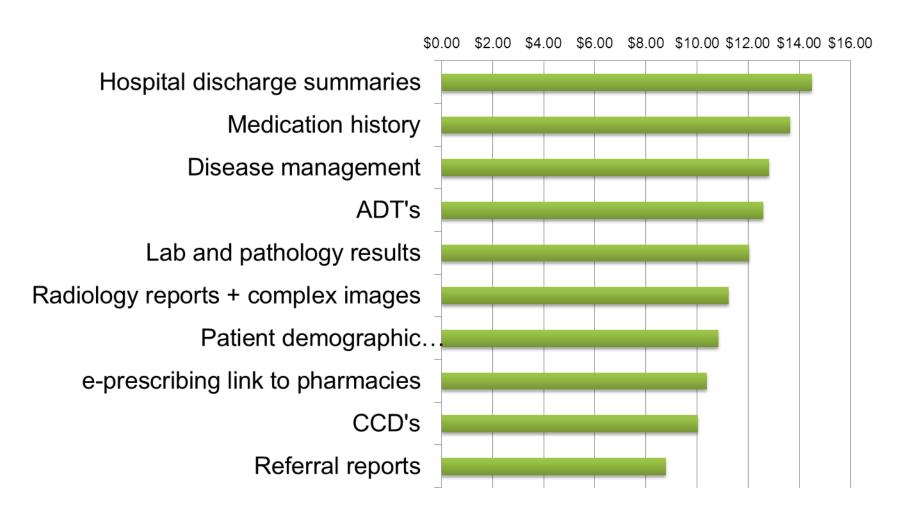
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February 2017 43

HIE Uses, Circa 2013 – DC HIE Stakeholder Survey



How Would Providers Spend a Hypothetical \$100 on HIE Services, 2013







REFERENCE SLIDES

AHRQ 2015 HIE Systematic Review

HIE Topic	# Studies	Summary of Evidence
Effectiveness	34	Low quality evidence somewhat supports the value of HIE for reducing duplicative laboratory and radiology test ordering, Lowering ED costs, reducing hospital admissions (less so for readmissions), improving public health reporting, increasing ambulatory quality of care, and improving disability claims processing. No studies of harm were reported.
Use	58	The proportion of hospitals and ambulatory care practices that have adopted HIE is increasing. Currently, rates of HIE use within organizations with HIE are low.
Usability and factors affecting use	22	The most commonly cited barriers to HIE use were lack of critical mass electronically exchanging data (8 studies); inefficient workflow (10 studies); poorly designed interface and update features (7 studies).
Implement- ation and Sustainability	tion and characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the internal environment of the characteristics of HIE projects or the characteristics or the cha	

AHRQ's 5 Organizing Principles for Evaluating HIE

Organizing Principle	Example Measures			
Types of Data Exchanged	 Outpatient providers and laboratories Between outpatient providers and public health departments 			
Outcomes and Process Measures	 Clinical Outcomes Measures Clinical Processes Measures Process measures will be available faster than outcomes** Provider Adoption and Attitudes Measures Patient Knowledge and Attitudes Measures Workflow Impact Measures Financial Impact Measures 			
Quality & Safety	 Advances in Care Processes Improved Patient Outcomes Better Monitoring of Diseases and Other Health Risks Reduced Medication Errors 			
Organizational Efficiency & Effectiveness	 Work and Quality Improvement Processes Communication Among Individuals, Groups, and Organizations Satisfaction of Needs and Expectations of Patients, Providers, and Other Stakeholders Organizational Risk Mitigation Reduced Ordering of Redundant Laboratory and Radiology Examinations 			
Financial	 Cost Reductions Revenue Enhancement Productivity Gains Cost savings Resulting from Redundant Test Ordering Greater Use of Lower Cost Medications 			

State Evaluation Approaches: TN & NY



Tennessee MidSouth eHealth Alliance:

- Cost
- Use and Usability
- Clinical Outcomes of Disease-Specific Hypotheses
 - Neonatal Group β-hemolytic streptococcus
 - Asthma
 - Congestive Heart Failure
 - Immunization
- Dollars Saved through Care Delivery
- Workflow Gains

New York Health Information Technology Evaluation Center:

- Usage
- Financial
- Quality
- Safety
- Consumer Satisfaction
- Provider Satisfaction

Evaluating transferring data:

- Completeness
- Timeliness
- Accuracy of Data Transfer
- Success in Matching Patients
- Confidentiality Breaches

Source: "The United Hospital Fund Meeting on Evaluating Health Information Exchange," 2007.



January 2017

Assessments and Headlines in New York



Assess:

- Platform Evaluation
- Usage Studies
- Immediate Business Case
- Assessment of Clinical and Administrative Impact
- Unintended Consequences
- Comprehensive Return on Investment
- Program Evaluation

Hypothetical annual headlines:

- Health care providers are talking to each other
- The network is built
- Man in Syracuse has his life saved by a doctor in New York City
- New York State saves millions of dollars
- New Yorkers are healthier

Source: "The United Hospital Fund Meeting on Evaluating Health Information Exchange," 2007.

January 2017

Massachusetts eHealth Collaborative Evaluation



HIE Usage Data Elements:

- Use of Technologies
 - Before/After Use of EHRs
 - Extent of Usage Within Practices
 - Electronic prescriptions
 - Use of clinical decision support
 - Proportion of Practices <u>Exchanging Data</u>
 - Lab, radiology, prescription, referral, hospital
 - Among Exchanging Practices:
 - Proportion sending/receiving key elements
 - Counts of key elements
 - Number of Data Elements Moving in Clinical Data Exchanges
- Barriers/Facilitators of Adoption
 - MD Characteristics
 - Practice Characteristics
 - Physician Receptivity to and Use of EHRs/Data Exchange
 - Characterization of Implementation
 - Strategies and Vendors

Implementation Tactics

- Assess whether intensive outreach, targeting specific adoption barriers, promotes EHR adoption more effectively than standard program
- Outcomes to include proportion of notes electronic, electronic prescriptions, number of problems documented among others

Effects on Quality

NCQA, NQF, AHRQ Quality Measures

Medication Safety

- Medication errors
- Near-misses
- Preventable ADEs
- Other alerts e.g. allergy, drug-drug including overrides

Economic Evaluation

- Costs
- Savings
- Return on Investment

Sources: AHRQ, "The Massachusetts eHealth Collaborative: Description and Evaluation Plan," April 2007.

January 2017 51

DC's 2014 Evaluation Plan and Report



Planned Components

- 1. Governance
- Finance
- 3. Technical Infrastructure
- 4. Business and Technical Operations
- 5. Legal & Policy

Report Addressed:

- Effectiveness of the Governance Model Used by DC HIE (1)
- Progress of DC HIE Implementation and its Use by Physicians and Other Key Stakeholders
- Increase in EHR Adoption as a Result of the implementation of the DC HIE
- Conformance of the DC HIE to the Program Information Notices (PINs) Released by ONC over the Duration of the Program
- Ability of the DC HIE to Meet the Criteria for Stage One of Meaningful Use for Electronic Prescribing, Lab Results Delivery and Electronic Care Summary Exchange via Direct and their Level of Preparedness for Meaningful Use Stage Two

Sources: Clinovations, "District of Columbia Health Information Exchange Evaluation Plan," August 2013. Clinovations, "District of Columbia Health Information Exchange Evaluation Report," January 2014.



January 2017

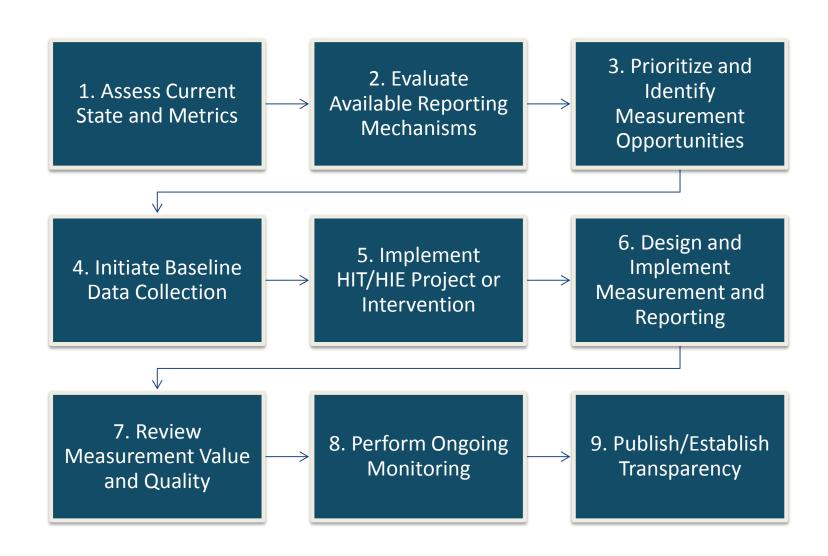
PopHealth Measurement Framework for HIT/HIE

Clinical	Financial	Operational	Satisfaction	Project-Specific
Condition/Disease Specific	Cost Reduction	Communications	Patient	Milestones
Preventative	Cost Avoidance	Efficiency/ Redundancy	Physician	Timelines
Chronic Care Management	Productivity Impact	Governance & Policies	Other Clinical (Nurse, MA, Therapies)	Budget
Clinical Quality Indicators	Provider Cost Impact	Management	Care Management	Skills Alignment
Best Practice Adherence	Payer Cost Impact	Risk Mitigation	Non Clinical Staff	Training and Adoption
MU/MACRA/PCMH/ ACO/Etc. Measures	Patient Cost Impact	Utilization	Payer	Maintenance
Etc.	Etc.	Etc.	Community	Change Management

Strategic	Readiness	ROI - Clinical	Integrated Architecture	Impact to Near-Term Goals/Mission/ Vision
	Prioritization	ROI - Financial	Data Availability	Impact to Long-Term Goals/Mission/Vision
	Stakeholder Impact	ROI - Operational	Data Accuracy/ Usability	Quick Wins / High Value (Low Barriers)

Source: Clinovations GovHealth

Operationalizing a Measurement Framework



Source: Clinovations GovHealth

54

HIE Data Needs to Support P4P Measures

NQF 1598: Total Resource Use

Description: The Resource Use Index (RUI) is a risk adjusted measure of the frequency and intensity of services utilized to manage a provider group's patients. Resource use includes all resources associated with treating members including professional, facility inpatient and outpatient, pharmacy, lab, radiology, ancillary and behavioral health services.

Per capita (population- or patient-based)

• Data Source: Claims (Only), Other

NQF 1604: Total Cost of Care

Description: Total Cost Index (TCI) is a measure of a primary care provider's risk adjusted cost effectiveness at managing the population they care for. TCI includes all costs associated with treating members including professional, facility inpatient and outpatient, pharmacy, lab, radiology, ancillary and behavioral health services.

- Per capita (population- or patient-based)
- Data Source: Claims (Only)

NQF 0646: Reconciled Medication List Received by Discharged Patients (Discharges from an Inpatient Facility to Home/Self Care or Any Other Site of Care)

Description: Percentage of patients, regardless of age, discharged from an inpatient facility (e.g., hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home or any other site of care, or their caregiver(s), who received a reconciled medication list at the time of discharge including, at a minimum, medications in the specified categories

- Denominator Statement: All patients, regardless of age, discharged from an inpatient facility (e.g., hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care
- Data Source: Claims (Only), Other, Paper Records

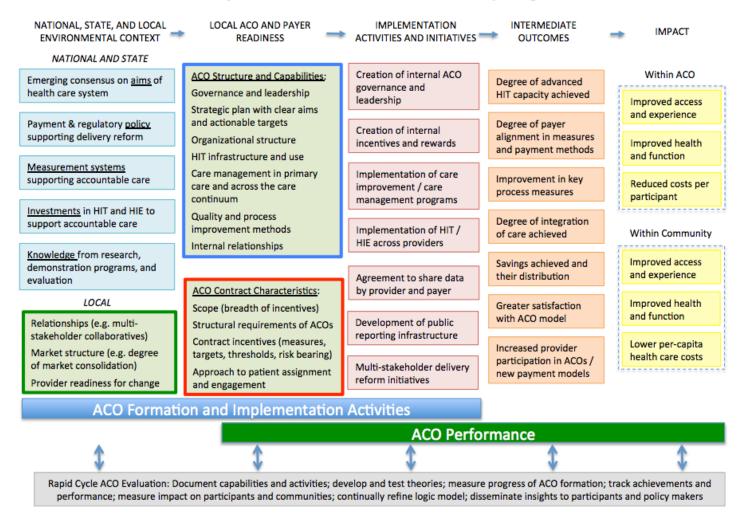
NQF 0648: Timely Transmission of Transition Record

Description: Percentage of patients, regardless of age, discharged from an inpatient facility (e.g., hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home or any other site of care for whom a transition record was transmitted to the facility or primary physician or other health care professional designated for follow-up care within 24 hours of discharge

- Denominator Statement: All patients, regardless of age, discharged from an inpatient facility (e.g., hospital inpatient or observation, skilled nursing facility, or rehabilitation facility) to home/self care or any other site of care
- Data Source: Claims (Only), Other, Paper Records

ACO Evaluation Logic Model: Draft

The Journey toward Accountable Care: A Draft Logic Model



Note: The authors' recognize that influences can operate both within a column, as well as across the columns from left to right.